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An Annotated Vascular Flora of Areas Adjacent to the Dempster Highway, Central Yukon Territory I. Pteridophyta, Gymnospermae and Monocotyledonae

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Abstract: The Dempster Highway provides access to the southern Ogilvie Mountains glaciated in Wisconsin time and a large almost completely unglaciated area to the north. The environmental conditions and vegetation of three biogeoclimatic zones represented in the area are briefly outlined. Annotations including phytogeographic and zonal distributions, life-form, abundance and habitat data are provided for 142 taxa from the Pteridophyta, Gymnospermae and Monocotyledonae collected during a vegetation study of the area. Among these taxa, the following are represented by very few records in the Yukon flora or unknown from this part of the central Yukon Territory: *Woodsia ilvensis, Potamogeton foliosus, Calamagrostis inexpansa, Danthonia intermedia, Carex eburnea, C. Franklinii, C. heleonastes, C. Krausei, C. lapponica* and *C. laxa*. An additional 31 taxa are listed which were not found by us. A brief summary and analysis of taxa found by us is included in a following paper on the Dicotyledonae from areas adjacent to the Dempster Highway.

KEY INDEX WORDS: *Dempster Highway, flora, habitats, phytogeographic distribution, vascular plants, Yukon Territory.*

Introduction

The Dempster Highway provides access to a large particularly interesting area for vegetation studies because of its rich and diverse flora and wide range of habitats. Construction of the highway began in 1959 and it was officially opened August, 1979. In his 'Materials for a Flora of Central Yukon', Porsild (1974) described the area as probably one of the largest remaining botanically unexplored parts of Canada. His paper summarizes botanical exploration of the area and reports on many new and interesting records from the flora.

Our interest in the vegetation of the Ogilvie Mountains and areas adjacent to the Dempster Highway was due primarily to the area's glacial history, periglacial environment, geological diversity and phytogeographic position. During the vegetation study (see Kojima 1972, 1973, 1978), extensive plant collections were made from the Ogilvie Mountains and areas adjacent to the Dempster Highway from its junction with the Klondike Highway easterly of Dawson to MP 180 (290 km) the end of construction in 1973.

This paper provides an annotated checklist of vascular plants collected from the area together with records reported by Porsild (1974) on taxa not found by us in the area. For our collections, brief notes are provided of an ecological character and include life-form, phytogeographic and biogeoclimatic zonal distributions, relative abundance, as well as soil and habitat information. As the flora is large, this paper deals with the regional characteristics of the Ogilvie Mountain and Dempster Highway area with annotations on the Pteridophyta, Gymnospermae, and Monocotyledonae. A second paper II. Dicotyledonae (Brooke and Kojima 1986) provides annotations on this part of the flora together with a brief analysis of characteristics of the flora.

Regional Description

Plant collections were made largely in the North Klondike River valley, the East Blackstone and Blackstone River area, the Ogilvie River valley and Little Twelve Mile River which flows from the Tombstone Range into the Chandinu River (Fig. 1). This part of the central Yukon Territory (lat. 54°00′–66°00′ N, long. 137°00′–139°00′ W) ranges from about 430 to 2630 m asl elevation, has discontinuous but widespread permafrost (Brown 1967, Hughes 1969), is in large part unglaciated (Fig. 2) (Prest *et al.* 1967, Prest 1969) and contains several environmentally significant areas (Theberge *et al.* 1980). The area has three proposed IBP Ecological Reserve sites (Beckel 1975), Tombstone Mtn. (No. 65) visited by us in 1971 and the Ogilvie Mountains (Sheep Mtn. area (No. 20a) and Chapman Lake Region (No. 20b)) proposed by R. T. Porsild, and includes a number of important locations and habitats for rare vascular plants in the Yukon (Douglas *et al.* 1981).

Most of the collection sites were accessible from the Dempster Highway. Between MP 0 to 180 (290 km), the

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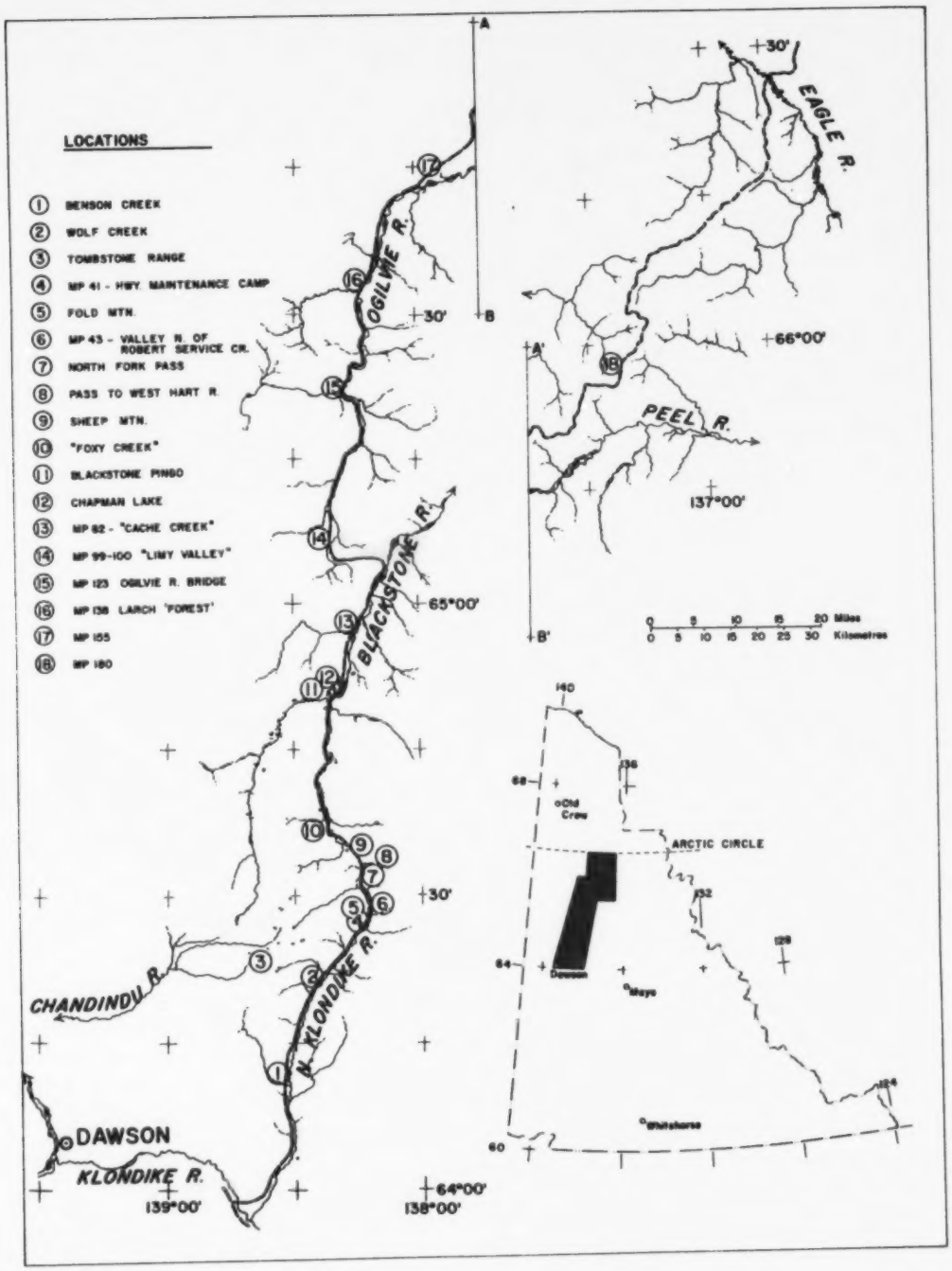

FIGURE 1. Location of the main vascular plant collection sites (1971–1973), Dempster Highway, central Yukon Territory.

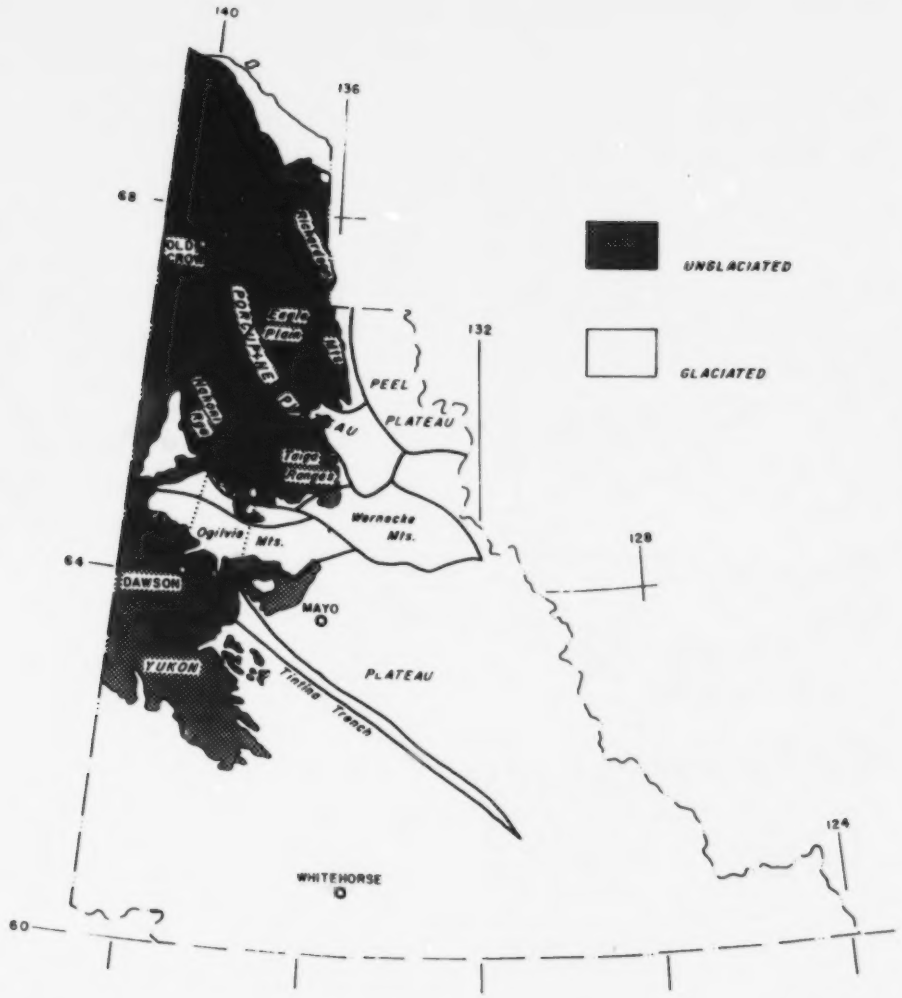

FIGURE 2. Physiographic units and unglaciated areas in the central and northern Yukon Territory adjacent to the Dempster Highway. (Redrawn from Map 1254 A (Bostock 1967) and Map 1246 A (Prest. *et al.* 1967)).

highway crosses the Ogilvie Mountains, Taiga Valley, Taiga Ranges, and the Ogilvie and Peel River valleys before reaching the Eagle Plain on the Porcupine Plateau (Fig. 2). The general topography and vegetation pattern within the area are shown in Figs. 3–10.

Physiography and Geology

The physiography of the central Yukon Territory is given in Bostock (1967, 1970). In the southern part of this area, the Tintina Trench and Ogilvie Mountains are dominant physiographic features. The Tintina Trench trends northwesterly and is believed to represent a major fault structure in the area. It has a displacement of about 200–250 miles on the north and south sides and separates mainly sedimentary rock units to the northeast from metamorphic rocks in the southwest (Tempelman-Kluit 1970, Green 1972). The Ogilvie Mountains are formed largely of sedimentary strata intruded locally by stocks of porphyritic syenite as in the Tombstone area (Tempelman-Kluit 1970, Green 1972). In this area, the topography is particularly rugged with jagged peaks reaching elevations of 1500 to 2350 m (Fig. 5). Within the southern Ogilvie Mountains, North Fork Pass (Figs. 1, 5) separates tributaries of the Yukon River drainage (North Klondike River flowing southerly) from the Arctic drainage (Blackstone and Peel Rivers flowing northerly).

To the north of the Ogilvie Mountains, the Taiga Ranges and Porcupine Plateau are important physiographic units in contrast. The Taiga Ranges are separated from the Ogilvie Mountains by Taiga Valley and have quite subdued mountain topography which developed on less resistant late Paleozoic rock (Green 1972). The Taiga Ranges are separated from the Porcupine Plateau and Eagle Plain by the Ogilvie and Peel River valleys. The Porcupine Plateau area is almost completely unglaciated and characterized by even-topped ridges having broadly rounded summits (Bostock 1970) (Fig. 10).

FIGURE 3. The Spruce-Birch-Willow (Subalpine) Zone and the Alpine Zone in the North Klondike River valley near Wolf Creek. Vegetation of the Boreal White and Black Spruce Zone occurs at lower elevations in the valley bottoms to the south.

FIGURE 4. Krummholz of *Picea mariana* near Fold Mountain west of MP 41 (66 km), Dempster Highway.

Two of the three closed-system pingos occurring in the central Yukon Territory (Hughes 1969) are found along the floodplain of the Blackstone River (see Figs. 8 and 9) just south of Taiga Valley.

The geology of the area is complex and given by Ricker (1968), Tempelman-Kluit (1970), Green (1972), and Douglas *et al.* (1970). The following account is taken from these sources.

West of the North Klondike River, numerous thrust faults and folds occur in a large area of massive quartzite (Keno Hill Quartzite) intruded by diabase sills. The alkali syenite and quartz monzonite stock of the Tombstone Mountain intrudes the massive quartzite (Tempelman-Kluit 1970, Green 1972). Both are of Cretaceous age. Shales, phyllitic and siliceous slates, chert and argillite occur locally south of North Fork Pass. Precambrian quartzite, sandstone, and conglomerate together with highly calcareous volcanic rocks form the bedrock in the Sheep Mtn. (Fig. 7) and "Foxy Creek" valley (Fig. 6) areas which are separated by the East Blackstone River valley. Farther along the Blackstone River in the Chapman Lake and "Cache Creek" area (Fig. 1), dolomite, limestone, black shale, argillite and slate of Paleozoic and Precambrian age form the bedrock. Much of the Porcupine Plateau and Eagle Plain area is underlain by shale, limestone, basalt and dolomite of Paleozoic age, or Cretaceous shale and sandstone (Douglas *et al.* 1970).

Climate

Although several climatic stations are located now along the Dempster Highway (Alberta, Dept. Environ 1976), monthly records for most are incomplete and long-term data is scarce. Kojima (1978) provides long-term data from nearby stations to the Ogilvie Mountains including the Dempster station located just south of North Fork Pass at a Highway Maintenance Station. Based on these data and some records of our own in 1972 and 1973, the climate of the Ogilvie Mountain area is of a typical continental type with large seasonal oscillations of temperature, extremely cold winters, rather mild summers with most of the precipitation occurring during June to October inclusive. Mean annual precipitation at the Dempster station has averaged 448 mm, compared with 329 mm (Dawson), 435 mm (Elsa) and 205 mm (Old Crow). From 43 to 57 per cent of the annual precipitation for these stations is snow, and almost all of the precipitation from October to April inclusive is snow. Freezing temperatures may occur in any month at all stations, and snow may fall in all months of the year except July at the southern stations. Mean daily temperature is −8.9°C with extreme temperatures of 30.0 to −48.9°C at the Dempster station, −5.4°C (35.0 to −58.3°C) at Dawson, −4.6°C (28.3 to −46.1°C) at Elsa, and −10.1°C (30.6 to −55.6°C) at Old Crow. The transition from winter (mean daily 0°C or less) to summer (mean daily 10°C or higher) occurs in May and from summer to winter in September. As Kendrew and Kerr (1955) note, this rapid change is largely related to the changing day length and solar altitude.

Although permafrost is discontinuous but widespread in the area (Brown 1967, Hughes 1969), large areas on north slopes, in valley bottoms and in areas with more or less flat topography are underlain by permafrost, and in most cases it is associated with bog vegetation with or without *Picea mariana*. Ricker (1968) suggests that permafrost is more continuous in the Blackstone drainage than in the North Klondike drainage perhaps due to a cooler climate. From our microclimatic records in 1972 and 1973 between early June and late August, the Blackstone River drainage station near Sheep Mtn. (1200 m asl) had an average mean daily temperature of about 4°C less than a North Klondike River station near MP 22 (35 km) (740 m asl). This difference, however, could be mostly accounted for by elevation. In any case, it is not unreasonable to suppose that a climatic change does occur in the North Fork Pass area (see Fig. 5) between the two drainages likely due to the influence of the Ogilvie Mountains in restricting interchange of Arctic and Polar air masses from the north and more milder air masses from the south.

Glaciation

The western Yukon has the largest unglaciated area in Canada (Prest *et al.* 1967; Prest 1969, 1970; Hughes *et al.* 1981). Although the Porcupine Plateau was largely unglaci-

ated and the Taiga Ranges only slightly glaciated (Bostock 1970), the Ogilvie Mountains were locally glaciated in Wisconsin time. Details of the several ice advances in the southern Ogilvies are given by Vernon and Hughes (1966) and Ricker (1968). Glaciation in this area occurred as successive advances of valley glaciers originating in cirques along the higher mountains. The valley glaciers extended only short distances from the mountains leaving much area, including Taiga Valley, unglaciated. Cirques containing active ice in the last glaciation and an older glaciation are common in the Tombstone Range and much of the southern Ogilvies (Vernon and Hughes 1966). Large glacial moraine deposits occur along the Blackstone River and Chapman Lake area as well as at North Fork Pass.

Vegetation

The vegetation of the plant collection areas is representative of three biogeoclimatic zones (Krajina 1975; Kojima 1972, 1973, 1978): the Boreal White and Black Spruce Zone (BWBS), the Spruce-Birch-Willow (Subalpine) Zone (SBW), and the Alpine Tundra Zone (AT). The area includes the Alpine Forest-Tundra section (part of the Peel River drainage) and eastern Yukon section (southern part of North Klondike River drainage) of the Boreal Forest Region (Rowe 1972) and Tundra (Ogilvie Mountains). Based on the presence or absence of tree species, permafrost and topography, Oswald and Senyk (1977) from a reconnaissance level biophysical survey outlined several Ecoregions for the Yukon Territory. Their Eagle Plain, North and South Ogilvie and Klondike River Ecoregions are represented in the three biogeoclimatic zones within our collection area.

The Boreal White and Black Spruce Zone (Boreal Forest Zone in Kojima 1978) occurs at elevations below about 800 m asl and is characterized by closed forests of white *(Picea glauca)* and black spruce *(P. mariana)* in mature stands on moderately to well-drained habitats. On poorly drained habitats, bog forests with stunted growth of black spruce develop and are underlain by permafrost. Within our collection area, this zone is found at lowest elevations in the southern North Klondike River drainage. *Populus balsamifera* occurs along the floodplain, and *Populus tremuloides* is represented in some early successional stages following fire. Kojima (1978) describes the following vegetation types from this zone: Cladonio-Cetrario-Piceetum glaucae et marianae, Artemisio (frigidae)-Lino-Agropyro-Calamagrostidetum purpurascentis, Hylocomio-Pleurozio-Piceetum glaucae et marianae, Equiseto (pratensis)-Petasiteto (frigidi)-Ribeto (hudsoniani)-Piceetum glaucae, Sphagno-Oxycocco-Ledo (decumbentis)-Piceetum marianae, Menyantheto-Arctophilo-Caricetum aquatilis et rostratae, and the Tomenthypno-Aulacomnio-Arctostaphylodo (rubrae)-Piceetum marianae.

Most of the areas, however, in which plant collections were made are representative of the Spruce-Birch-Willow (Subalpine) Zone (Subalpine/Subarctic Zone in Kojima 1978). This zone occurs over an elevational range of about 800–1500 m asl (about 100–200 m lower on north-facing slopes) and has been divided into two subzones: a lower (forest) subzone and an upper (shrub) subzone (Krajina 1975) (Fig. 3). The forest subzone has a tree cover not unlike that of the Boreal White and Black Spruce Zone but the

FIGURE 5. Tombstone Mountain (centre) of the Tombstone Range, Ogilvie Mountains and the headwaters of the North Klondike River from near North Fork Pass (1250 m), Dempster Highway. In this part of the Spruce-Birch-Willow (Subalpine) Zone (foreground), trees are localized in the most favourable habitats. A few kilometres south, closed forest cover occurs in the valley bottom along the North Klondike River. To the north, closed forest cover is absent in the East Blackstone River valley for over 50 kilometres to about MP 80 (128 km), Dempster Highway.

FIGURE 6. Topography and vegetation pattern in the East Blackstone River valley near MP 57 (92 km), Dempster Highway. Scattered low shrub thickets of *Salix* or *Betula glandulosa*, herb meadows, graminoid meadows and bog vegetation are common in the Blackstone River area. "Foxy Creek" valley (background).

common occurrence of *Betula glandulosa* in forested as well as non-forested habitats indicates the subalpine environment. The shrub subzone is characterized by the shrub thickets of *Betula glandulosa* and *Salix* spp. (mostly *Salix pulchra*) covering extensive areas. *Betula glandulosa* is common on moderately to well-drained habitats near and above tree-line, but is gradually replaced by *Salix* spp. especially *Salix pulchra* and *S. glauca* in more moist habitats near the base of slopes or valley bottoms where willow may completely dominate the vegetation. Large areas occupied by the Sphagno (fusci)-Eriophoretum vaginati (Kojima 1978) are common on north-facing slopes and more poorly drained level surfaces in this subzone. *Picea mariana* may sometimes occur as krummholz in the Spruce-Birch-Willow Zone (Fig. 4).

Other vegetation types described for the Spruce-Birch-Willow Zone by Kojima (1978) include: Cornicularia-Alectorio (ochroleucae)-Salico (arcticae)-Arctostaphyletum alpinae, Hylocomio-Pleurozio-Artemisio (arcticae)-Betuletum glandulosae, Polemonio (acutiflori)-Aconito (delphinifolii)-Petasiteto (frigidi)-Salicetum pulchrae, Hylocomio-Aulacomnio-Cetrario (cucullatae)-Vaccinio (uliginosae)-Betuletum glandulosae, and the Cladonio-Cetrario-Cassiopo (tetragonae)-Betuletum glandulosae. Earlier descriptions of the vegetation of this zone were provided by Kojima (1973).

Coniferous tree limit in the area occurs at elevations of about 1200 to 1500 m, and the subalpine vegetation is replaced by that of the Alpine Tundra Zone. Kojima (1978) places the lower elevational limit of this zone at 1500 to 1800 m asl. On south slopes, vegetation of this zone is characterized by *Carex obtusata, C. scirpoidea, Dryas octopetala, Empetrum nigrum, Festuca brachyphylla, Hierochloe alpina, Kobresia myosuroides, Oxytropis nigrescens, Pedicularis Kanei, Poa arctica, P. vaseyochloa, Potentilla uniflora,* and *Salix arctica*. On north slopes where snow is more persistent, *Cassiope tetragona, Dryas octopetala, Geum rossii* and *Salix reticulata* are common along with *Cetraria cucullata, C. islandica, C. Richardsonii, Cladonia rangiferina, C. sylvatica,* and *Dactylina arctica*. Species-rich herb meadows with *Aconitum delphinifolium, Artemesia arctica, Carex podocarpa, Draba ogilviensis, Gentiana propinqua, Luzula confusa, Myosotis alpestris, Petasites frigidus, Polemonium acutiflorum, Sedum roseum* and *Stellaria laeta* as important components are found near the base of slopes and stream edges.

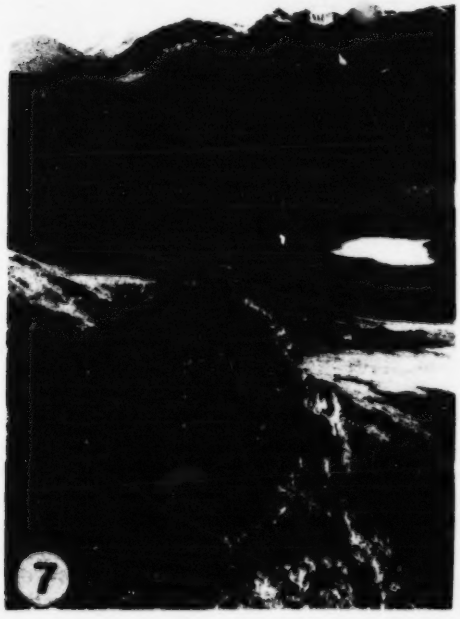

FIGURE 7. East Blackstone River valley and the Dempster Highway from the Sheep Mountain area near MP 54 (87 km) which is part of thearea proposed by R. T. Porsild as an Ecological Reserve. *Draba ogilviensis* and *Taraxacum carneocoloratum* are known from this general area.

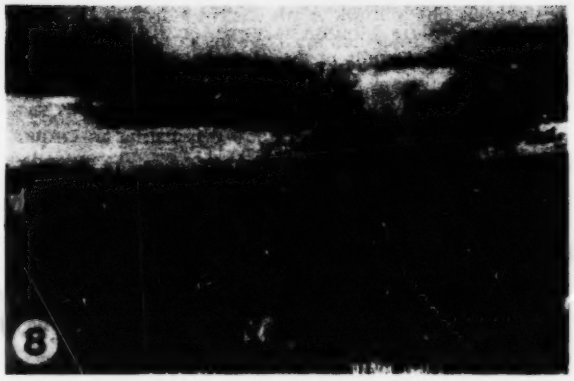

FIGURE 8. The Blackstone River valley near MP 72 (116 km), Dempster Highway. A narrow fringe of tree cover borders a recessional moraine (background) separating it from the meadow, bog, and scattered dwarf shrub cover of the valley bottom.

FIGURE 9. One of the two pingos in the floodplain of the Blackstone River about 8 kilometres west of the Dempster Highway. Oxbow lakes and meander scars create a variety of habitats in this area.

The general vegetation pattern and character of collected areas is given by Figs. 3–10, and other descriptions of the vegetation may be obtained from the reconnaissance survey of the Dempster Highway by Stanek *et al.* (1981) and Ricker (1968).

The Vascular Flora

Most of the plant collections reported in this paper were made in 1972 by SK and RCB and in 1973 by SK, RCB and V. J. Krajina, University of British Columbia. In 1971, in connection with an IBP Ecological Reserve survey in the Tombstone Mountain area, we made collections from there as well as along the Dempster Highway in late August and early September. The 1971 collections were made by SK, RCB and C. Béguin, Institut de Botanique, Université de Neuchatel, Switzerland. SK determined or verified all spec-

imens reported in the annotated flora from our collections and deposited as voucher specimens in the Simon Fraser University Herbarium (SFUV). Earlier collections of the vascular flora of the Dempster Highway area and Ogilvie Mountains were made by K. E. Ricker in 1964 and 1965 (Ricker 1968) and from 1966–1970 by R. T. and A. E. Porsild and reported in Porsild (1972 and 1974).

For the annotated flora, we have followed with few exceptions the nomenclature and arrangement of taxa based on Hultén (1968 and 1973). As Porsild (1974) reported many species from the area not found by us, we have included these records by [ ] within the family together with the collection location using the nomenclature provided by Porsild. As this may differ from that of Hultén, the Hultén equivalent follows the taxon in ( ). Species which have been designated as rare vascular plants in the Yukon flora by Douglas *et al.* (1981) are preceded by an asterisk (*). Numbers (1–18) in brackets following a location name refer to the general collection areas shown in Fig. 1.

In addition to the collection date and location of the collection, notes are given for:

1] *Life-form:* the Raunkiaer life-form designation as modified by Mueller-Dombois and Ellenberg (1974) was used and subdivisions applied only to the phanerophytes (e.g. mesophanerophyte scapose) and chamaephytes (e.g. chamaephyte suffrutescent). Life-form was assessed for average-sized individuals.

2] *Global distribution:* The maps provided by Hultén (1968) in "Flora of Alaska and Neighboring Territories" were employed for this purpose as well as designations given in Schofield (1969) and Porsild and Cody (1980) for some of the species. Species were placed into the following categories:

i) *Circumpolar:* a distribution in both the North American and Eurasian continents more or less evenly with a geometric center in the polar region, e.g. *Equisetum silvaticum* L. and *Andromeda polifolia* L.

ii) *North American:* species endemic to North America, e.g. *Picea glauca* (Moench) Voss.

iii) *Amphi-Beringian:* the distribution is more or less concentrated symmetrically in the Bering Strait area and tends to be confined to areas between long. 90°E to 90°W, e.g. *Chrysosplenium Wrightii* Fr. & Sav.

iv) *Ameroasian:* the distribution occurs primarily in the Eurasian continent and only to a lesser extent in North America, e.g. *Carex eleusinoides* Turcz.

v) *Asioamerican:* the distribution lies primarily in North America and only partly in the Eurasian continent, e.g. *Parnassia kotzebuei* Cham. & Schlecht.

vi) *EuroAmerican:* the distribution lies in North America as well as Europe, e.g. *Saxifraga aizoides* L.

vii) *Irregular:* distributions not falling in any of the above and difficult to generalize, e.g. *Gentiana algida* Pall.

Distribution patterns within the North American continent are given by regions where the species occurred and included: Arctic, Subarctic, Boreal, Pacific, Cordilleran, Alaska-Yukon, Prairie, etc. These regions basically followed the climatic regions of Hare and Thomas (1974) except that their Boreal region was divided into Boreal and Subarctic based on the floristic and physiognomic differences which occur between these areas. Alaska-Yukon was added which includes most of the unglaciated areas. Although this area may be regarded only as the northwestern extreme of the Cordilleran region, we believed it justifiable to separate it from the remaining Cordilleran region because of its unique historical background and interesting floristic characteristics (Hultén 1937, 1967, 1968). Where plant distributions covered more than four of the above regions, it was designated 'widespread' or 'scattered' in most cases depending on the distribution pattern. Distribution patterns were determined only for taxa from our collections; for a taxon at the subspecific level, the distribution was determined only for the subspecific level, no matter how the species was distributed.

3] *Abundance:* was rated on a relative scale for areas covered by the flora as follows: i) abundant — widespread throughout the area and generally in large number in several areas, ii) common — occurring throughout the area but not always in large number nevertheless easy to find, iii) occasional — occurring sporadically throughout the area and more specific to particular habitats, iv) rare — known from only a few more or less restricted localities or a small number of individuals are known within the area therefore difficult to find.

4] *Habitat:* information in this category in addition to the specific habitat includes an assessment of soil moisture and nutrient conditions based on detailed vegetation and soil analyses undertaken throughout the area, characteristics of the parent material and topographic position. The moisture rating included the categories xeric — water supply essentially limited to precipitation, mesic — water supply primarily depends on precipitation but partly and temporarily may include some seepage, hygric — soils having continual seepage but with a water table only rarely reaching the surface at wettest times of the year, and hydric — having soils always saturated with water and a water table is near or above the ground surface for most of the growing

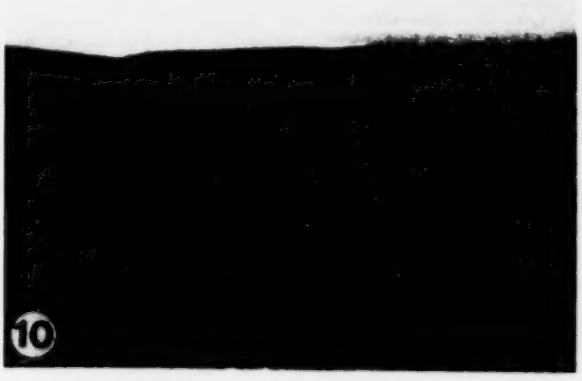

FIGURE 10. The Spruce-Birch-Willow (Subalpine) Zone of the Porcupine Plateau near MP 160 (257 km), Dempster Highway.

season. Aquatic was applied to plants (floating or anchored) in standing water. Soil nutrient conditions were rated as follows: oligotrophic — nutrient supply is limited from acidic or circumneutral parent material and influx of nutrients by seepage is unlikely, mesotrophic — occasional influx of nutrients from seepage may occur and parent material is not highly calcareous and base-rich, subeutrophic — continual seepage may occur in the soil or parent material contains a high amount of nutrients (e.g. dolomite and limestone), eutrophic — soils containing a high amount of nutrients which are often concentrated and precipitated as in salt marshes for example.

5] *Zones:* zones in which species were found are listed as AT (Alpine Tundra Zone), SBW (Spruce-Birch-Willow (Subalpine) Zone), and BWBS (Boreal White and Black Spruce Zone).

Annotated List of Species

Lycopodiaceae

Lycopodium alpinum L.
Chamaephyte herbaceous. Circumpolar; Cordilleran, Pacific, eastern Subarctic. Occasional; meadows in AT zone on mesic mesotrophic soil. Fold Mtn. (5), 1190–1250 m, 73-06-20; Tombstone Range (3), 1325 m, 71-08-29.

Lycopodium annotinum L.
Chamaephyte herbaceous. Circumpolar; widespread in North America. Occasional; mesic mesotrophic soil of spruce forests, birch thickets and meadows. BWBS, SBW and AT zones. MP21 (34 km), 71-09-01; Tombstone Range (3), 1300 m, 71-08-28; North Fork Pass (7), 1310–1340 m, 72-07-09; MP 89 (143 km), 840 m, 73-06-16.

Lycopodium complanatum L.
Chamaephyte reptant. Circumpolar; Boreal, Cordilleran. Rare. Spruce forests of the BWBS zone on mesic mesotrophic soil. MP 21 (34 km), 71-09-01.

Lycopodium selago L.
Chamaephyte herbaceous. Circumpolar; widespread in North America. Occasional; birch thickets and alpine meadows with mesic to hygric soil in the SBW and AT zones. Tombstone Range (3), 1550 m, 71-08-28; Fold Mtn. (5), 1250 m, 73-06-20; North Fork Pass (7), 1340 m, 72-07-09; Foxy Creek (10), 1200 m, 72-07-18.

Selaginellaceae

Selaginella selaginoides (L.) Link
Chamaephyte herbaceous, calcicolous. Circumpolar; scattered distribution in North America. Occasional; hygric subeutrophic soil of SBW and AT zones. Tombstone Range (3), 1450–1460 m, 71-08-29. This is the second reported collection from the central northwestern Yukon. Porsild (1974) reported it from MP 83 (134 km) Dempster Highway.

Selaginella sibirica (Milde) Hieron.
Saxicolous herbaceous chamaephyte. Ameroasian; Alaska-Yukon. Occasional. Xeric, mesotrophic shallow soil over rock in the SBW and AT zones. Fold Mtn. (5), 1250 m, 73-06-20; Sheep Mtn. (9), 1400–1495 m, 73-07-17; MP 82 (132 km) (13), 1500 m, 73-06-16.

Equisetaceae

Equisetum arvense L.
Geophyte. Circumpolar; widespread in North America. Common; roadsides, spruce forests and open woodlands on mesic mesotrophic soil in BWBS and SBW zones. Tombstone Range (3), 71-08-30; North Fork Pass (7), 71-09-02; MP 116 (187 km), 71-09-01.

Equisetum fluviatile L.
Geophyte. Circumpolar; widespread. Rare. Found in shallow water; BWBS and SBW zones. MP 23 (37 km) (2), 72-07-14. This collection helps fill a gap in the distribution map provided for this species by Hultén (1968).

Equisetum palustre L.
Geophyte. Circumpolar; widespread. Rare. Stream edges, flood plains in BWBS zone with subeutrophic soil. MP 138.5 (223 km) (16), 560 m, 73-06-22.

Equisetum pratense Ehrh.
Geophyte. Circumpolar; widespread in North America. Common; hygric subeutrophic soil in spruce forests and on flood plains in SBW and BWBS zones. Plot K29, 72-07-29.

Equisetum scirpoides Michx.
Herbaceous chamaephyte. Circumpolar; widespread. Common. Hygric subeutrophic soil in spruce forests and meadows of SBW and BWBS zones. Tombstone Range (3), 1440 m, 71-08-29; Foxy Creek (10), 1200 m, 72-07-18; MP 111 (179 km), 71-09-02.

Equisetum sylvaticum L.
Geophyte. Circumpolar; widespread in North America. Common. Hygric mesotrophic soil in spruce forests with acidic humus. SBW and BWBS zones. MP 23 (37 km), 72-07-01. There are few reports of this species north of approximately 64°N latitude in the Yukon. Wein *et al* (1974) have extended the known range of this species north into the Porcupine River drainage just east of Old Crow, Yukon.

Equisetum variegatum Schleich.
Herbaceous chamaephyte. Circumpolar; widespread. Occasional; hygric subeutrophic soil of alluvial sand bars and river banks; stream edges. BWBS and SBW zones. Tombstone Range (3), 1450 m, 71-08-29; Foxy Creek (10), 1310 m, 72-07-18; Blackstone Pingo (11), 72-08-20.

Ophioglossaceae

Botrychium lunaria (L.) Sw.
Geophyte. Circumpolar; widespread. Rare. Mesic mesotrophic soil in SBW zone. Found along a game trail in *Salix* thicket vegetation. Tombestone Range (3), 1325 m, 71-08-29.

Cryptogrammaceae

Cryptogramma crispa (L.) R. Br.
Saxicolous hemicryptophyte. Circumpolar; Subarctic, Cordilleran. Occasional; xeric mesotrophic soil on rock outcrops in SBW zone. Tombstone Range (3), 1350 m, 71-08-28.

*[*Cryptogramma Stelleri* (S. G. Gmel.) Prantl]
Described by Porsild (1974) as a rare species in the Yukon. The collections he reported were from rock crevices and moist rock ledges, MP 54–55 (89–91 km), 58 (93 km), and 100 (161 km) Dempster Highway.

Athyriaceae

Cystopteris fragilis (L.) Bernh.
Calcicolous hemicryptophyte. Circumpolar; widespread. Occasional; xeric subeutrophic soil of rock cliffs in BWBS, SBW and AT zones. Tombstone Range (3), 1400 m, 71-08-31; Fold Mtn. (5), 1035 m, 73-06-20; Sheep Mtn. (9), 1525–1830 m, 72-07-10; Cache Creek (13), 915–1220 m, 73-06-14; MP 116 (187 km), 71-09-02. There are few reports of this species from the northern Yukon. Welsh and Rigby (1971) report it from north of latitude 68°30'N, and Nagy *et al* (1979) recorded ssp. *fragilis* from the same general area, British Mountains, northern Yukon.

Cystopteris montana (Lam.) Bernh.
Calcicolous geophyte. Circumpolar; scattered distribution in North America. Rare. Mesic subeutrophic soil on rock cliffs in SBW zone. Tombstone Range (3), 1320 m, 71-08-29.

[*Woodsia alpina* (Bolton) S. F. Gray]
Collected on dry, rocky ledges MP 50–54 (80–87 km) Dempster Highway (Porsild 1974).

Woodsia glabella R. Br.
Calcicolous hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional; xeric subeutrophic soil on rock crevices in BWBS, SBW and AT zones. Sheep Mtn. (9), 1770–1920 m, 72-07-10; Foxy Creek (10), 72-07-18.

**Woodsia ilvensis* (L.) R. Br.
Saxicolous hemicryptophyte. Circumpolar; Subarctic, Boreal, Cordilleran. Rare. Xeric mesotrophic soil of rock cliff habitats in BWBS and SBW zones. Fold Mtn. (5), 1035 m, 73-06-20; Cache Creek (13), 1050 m, 73-08-20. This is the first reported collection from the central Yukon, and fills a large gap in the distribution as given by Hultén (1968).

Aspidiaceae

Dryopteris fragrans (L.) Schott
Saxicolous hemicryptophyte. Circumpolar; widespread in North America. Occasional; xeric mesotrophic soil of rock cliffs and talus slopes in BWBS, SBW and AT zones. Tombstone Range (3), 1425 m, 71-08-29; Fold Mtn. (5), 1220 m, 72-06-13; MP 82 (132 km), 975 m, 73-06-16; MP 85 (137 km), 930 m, 72-06-15.

*[*Dryopteris Robertiana* (Hoffm.) C. Chr.] (*Gymnocarpium robertianum* (Hoffm.) Newm.)
Reported by Porsild (1974) from a rocky slope, MP 100 (161 km) Dempster Highway.

Pinaceae

Larix larcina (Du Roi) K. Koch
Mesophanerophyte scapose. North American; Subarctic, Boreal. Rare. Hygric subeutrophic soil in a swampy habitat. MP 138.5 (223 km), 560 m, 73-06-22. BWBS zone.

Picea glauca (Moench) Voss
Mesophanerophyte scapose and krummholz. North American; Subarctic, Boreal. Mesic mesotrophic soil. Abundant; forests of the BWBS and SBW zones.

Picea mariana (Mill.) Britt., Sterns & Pogg
Mesophanerophyte scapose and krummholz. North American; Subarctic, Boreal. Abundant; mesic to hygric oligotrophic soil of bog forests and forests established over acidic substrate in BWBS and SBW zones. Forming krummholz at 1430 m in the Fold Mtn. area (5), 73-06-20. (Fig. 4).

Cupressaceae

Juniperus communis L. ssp. *alpina* (Neilr.) Celak (emended from ssp. *nana* (Willd.) Syme in Hultén (1973))
Nanophanerophyte caespitose. Circumpolar; widespread in North America. Occasional; xeric mesotrophic soil of open ridges and rock cliffs in BWBS and SBW zones. MP 91 (146 km), 890 m, 72-06-15.

Sparganiaceae

[*Sparganium angustifolium* Michx.]
Noted as a range extension to MP 72 (116 km) and 90–93 (145–150 km) Dempster Highway in Porsild (1974).

Sparganium hyperboreum Laest.
Geophyte aquatic. Circumpolar; Subarctic. Rare. Ponds in SBW zone. MP 40 (64 km), 960 m, 73-08-02. Reported by Porsild (1974) from river flats near MP 55 (88 km) in shallow ponds, Dempster Highway.

[*Sparganium multipedunculatum* (Morong.) Rydb.]
Found in deep ponds MP 90–91 (145–146 km), Dempster Highway (Porsild 1974).

Potamogetonaceae

Potamogeton filiformis Pers.
Aquatic geophyte. Circumpolar; widespread in North America. Rare. Shallow water in oxbow lake near Blackstone River pingo (11), 990 m, 72-08-20. SBW zone.

**Potamogeton foliosus* Raf.
Aquatic geophyte. North American; widespread. Rare. Submerged in shallow water in SBW zone. (11), 990 m, 72-07-16. This is the second report from the Dempster Highway area. Porsild (1974) reported this species var. *macellus* Fern. from MP 72 (116 km) Chapman Lake, MP 74 (119 km), MP 90–91 (145–146 km) Dempster Highway as new to the flora of the Yukon.

[*Potamogeton Friesii* Rupr.]
Evidently rare in the Yukon. Porsild (1974) recorded it from a lake near MP 65 (105 km) and Chapman Lake MP 72 (116 km) Dempster Highway.

Potamogeton gramineus L.
Aquatic geophyte. Circumpolar; widespread in North America. Rare. Shallow water near MP 81 (130 km), 915 m, 73-08-25. SBW zone.

Potamogeton perfoliatus L.
Aquatic geophyte. Circumpolar; widespread. Shallow water in oxbow lake near Blackstone pingo. SBW zone. 72-08-20. Rare.

*[*Potamogeton praelongus* Wulf.]
Reported from deep water in Chapman Lake, MP 72 (116 km) Dempster Highway by Porsild (1974). Reported previously only twice according to the distribution map including the Yukon by Hultén (1968).

Juncaginaceae

Triglochin maritimum L.
Hemicryptophyte. Circumpolar; widespread in North America. Hygric eutrophic soil in marshes of BWBS and SBW zones. Rare. Blackstone pingo (11), 72-08-20.

Gramineae

[*Agropyron boreale* (Turcz.) Drobov. ssp. *boreale*]
MP 57 (92 km) and Blackstone River valley MP 83–86 (134–138 km) in dry habitats (Porsild 1974).

[*Agropyron boreale* (Turcz.) Drobov. ssp. *hyperarcticum* (Polunin) Melderis]
Recorded by Porsild (1974) from a sandy riverbank meadow near MP 67 (108 km) and near MP 83–86 (134–138 km) Dempster Highway.

Agropyron macrourum (Turcz.) Drobov. (*A. sericeum* Hitchc. in Porsild 1974)
Hemicryptophyte. Amphi-Beringian. Rare. Mesic subeutrophic soil along streams, river flats and outwash in SBW zone. Tombstone Range (3), 1220 m, 71-08-31; MP 23 (37 km), 72-07-01; MP 155 (249 km), 520 m, 73-06-22. The last collection together with Porsild's (1974) from MP 95 (153 km) fills a gap in the distribution map provided by Hultén (1968).

Agropyron pauciflorum (Schwein.) Hitchc.
Hemicryptophyte. North American; widespread. Rare. River banks with mesic mesotrophic soil in the BWBS and SBW zones. Benson Creek, MP 18 (29 km), 72-07-12; MP 42 (68 km), 975 m, 73-07-07. These records are a northern range extension for the species in the Yukon to latitude 64°30'N.

Agropyron pauciflorum (Schwein.) Hitchc. ssp. *novae-angliae* (Scribn.) Melderis
Blackstone pingo (11), 990 m, 72-08-20, latitude 64°50′N. There are very few records of this subspecies from the Yukon.

Agropyron violaceum (Hornem.) Lange ssp. *violaceum*
Hemicryptophyte. North American and Greenland; Subarctic, Cordilleran. Occasional; mesic mesotrophic soil in subalpine grassland of SBW zone. North Fork Pass (7), 1070 m, 71-09-02.

Agrostis Mertensii Trin. (emend. from *A. borealis* Hartm. in Hultén 1973)
Hemicryptophyte. Circumpolar; widespread. Rare. Mesic mesotrophic soil of forest edges and river banks in the BWBS and SBW zones. Tombstone Range (3), 1320 m, 71-08-29.

Agrostis scabra Willd.
Hemicryptophyte. North American; widespread. Occasional; mesic mesotrophic soils of forest edges and disturbed sites in BWBS zone. Wolf Creek (2), 890 m, 72-07-11; MP 41 (66 km), 960 m, 73-08-22; North Fork Pass (7), 71-09-02.

Alopecurus aequalis Sobol.
Hemicryptophyte. Circumpolar; widespread. Rare. Lake shores and temporary ponds with hydric subeutrophic soil in BWBS and SBW zones. North Fork Pass, MP 50 (80 km), 1310 m, 73-07-19.

Alopecurus alpinus Sm.
Geophyte. Circumpolar; Arctic, Cordilleran. Occasional. Meadows and seepage habitats with hygric subeutrophic soil in AT zone. Tombstone Range (3): 1440 m, 71-08-29; 1500 m, 71-08-29; 1550 m, 71-08-30.

Arctagrostis latifolia (R. Br.) Griseb.
Geophyte. Circumpolar; Arctic, Subarctic. Common along river banks and in flood plains with hygric subeutrophic soil of SBW and AT zones. Tombstone Range (3), 1300 m, 71-08-29; MP 32.5 (52 km), 71-09-03; North Fork Pass (7), 1070 m, 71-09-02; MP 111 (179 km), 71-09-02.

Arctagrostis poaeoides Nash
Geophyte. North American; Alaska-Yukon. Occasional. River banks and stream edges with hygric subeutrophic soil in SBW zone. North Fork Pass (7), 71-09-02; MP 103 (166 km), 71-09-02; MP 111 (179 km), 71-09-02. A slight northern range extension to 65°10′N latitude in the Yukon; also reported by Porsild (1974) from MP 54–55 (87–88 km) Dempster Highway.

Arctophila fulva (Trin.) Anderss.
Geophyte. Circumpolar; Arctic, Subarctic. Occasional; shallow water and lake shores with subeutrophic soils in SBW zone. MP 59 (95 km), 72-07-03.

Bromus Pumpellianus Scribn.
Hemicryptophyte. Amphi-Beringian. Occasional; grasslands and alpine meadows with mesic subeutrophic soils in SBW and AT zones.
var. *arcticus* (Shear.) Pors. Sheep Mtn. (9), 1525 m, 72-07-10
var. *villosissimus* Hult. Blackstone Pingo (11), 72-08-20.

Calamagrostis canadensis (Michx.) Beauv.
Hemicryptophyte. Circumpolar; widespread. Common. Stream edges, willow thickets and moist spruce forests with hygric subeutrophic soil in BWBS and SBW zones. Tombstone Range (3): 71-08-28; 71-08-29.

Calamagrostis inexpansa Gray
Hemicryptophyte. Asioamerican; widespread. Occasional. Hygric subeutrophic soils of subalpine meadows and birch thickets in BWBS and SBW zones. Tombstone Range (3), 1440 m, 71-08-29. This collection together with that noted by Ricker (1968) from the Dempster Highway area bridges a major gap in the distribution of this species from the Yukon.

Calamagrostis lapponica (Wahlenb.) Hartm.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional; mesic subeutrophic soils on open south-facing slopes of SBW zone. Tombstone Range (3), 1615 m, 71-08-28; MP 16 (26 km), 72-08-22; MP 21 (34 km), 71-09-01; North Fork Pass (7), 71-09-02.

Calamagrostis neglecta (Ehrh.) Gaertn., Mey. & Schreb.
Hemicryptophyte. Circumpolar; widespread in North America. Occasional; subalpine meadows and stream edges with hygric subeutrophic soil in the BWBS and SBW zones. MP 116 (187 km), 71-09-02.

Calamagrostis purpurascens R. Br.
Calcicolous hemicryptophyte. Asioamerican; widespread and scattered. Occasional. Mesic subeutrophic grasslands in SBW zone. MP 15 (24 km), 73-07-20; Sheep Mtn. (9), 1525 m, 72-07-10; Foxy Creek (10), 72-07-18; Cache Creek Mtn. (13), 1130 m, 73-08-18; MP 100 (161 km), 850 m, 73-06-19; MP 116 (187 km), 72-09-02.

*[*Calamagrostis Robertii* Pors.]
Described as a new species by Porsild (1974) from gravelly river terraces near MP 59 (90 km) Dempster Highway.

Danthonia intermedia Vasey
Hemicryptophyte. Asioamerican; widespread but scattered distribution in North America. Rare. Mesic subeutrophic soil of grassy meadows in the SBW zone. Tombstone Range (3), 71-08-28. Previously unreported from the north-central Yukon and extends the range of this species to 64°20′N latitude.

Deschampsia brevifolia R. Br.
Hemicryptophyte. Circumpolar; Arctic, Subarctic. Common. Meadows and river banks with mesic mesotrophic soil in SBW and AT zones. Tombstone Range (3), 71-08-30; MP 61 (98 km), 72-07-07.

Deschampsia caespitosa (L.) Beauv.
Hemicryptophyte. Circumpolar; widespread in North America. Occasional; meadow and seepage sites with hygric subeutrophic soil in BWBS, SBW and AT zones. Tombstone Range (3), 71-08-30.

Elymus innovatus Beal
Calcicolous geophyte. North American; Subarctic, Cordilleran. Rare. Mesic subeutrophic sandy soil in SBW zone. MP 100 (161 km), 900 m, 72-07-07.

Festuca altaica Trin.
Calcicolous hemicryptophyte. Amphi-Beringian. Occasional; mesic subeutrophic soil in grasslands and spruce forests of SBW and AT zones. Tombstone Range (3), 1440 m, 71-08-29; North Fork Pass (7), 1070 m, 71-09-02; Sheep Mtn. (9), 1415 m, 72-07-10; Foxy Creek (10), 72-07-18; MP 96 (154 km), 1080 m, 72-06-15; MP 103 (166 km), 71-09-02.

[*Festuca baffinensis* Polunin]
Noted by Porsild (1974) from a dry, rocky exposure east of MP 50–54 (80–87 km) Dempster Highway.

Festuca brachyphylla Schult.
Calcicolous (?) hemicryptophyte. Circumpolar; widespread. Occasional. Meadows with mesic subeutrophic soil in SBW and AT zones. Tombstone Range (3), 1830 m, 71-08-28; Sheep Mtn. (9), 1770–1920 m, 72-07-10; North Fork Pass (7), 1400–1525 m, 72-07-09; MP 65 (105 km), 71-09-02; MP 116 (187 km), 71-09-02. These collections with those of Porsild (1974) fill a large gap in the distribution of this species in the central Yukon.

Festuca rubra L.
Hemicryptophyte. Circumpolar; widespread. Occasional. Hygric subeutrophic soil of river banks and floodplains in BWBS and SBW zones. MP 61 (98 km), 72-07-07.

"Festuca vivipara" (*F. vivipara* (L.) Sm. in Porsild 1974)
Tombstone Range (3), 1440 m, 71-08-31 from the base of a talus slope.

[*Glyceria grandis* S. Wats.]
Reported by Porsild (1974) from a shallow slough near MP 95 (153 km) Dempster Highway.

Hierochloë alpina (Sw.) Roem. & Schult.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Common. Mesic mesotrophic soil in alpine meadows, lichen barrens and bogs of SBW and AT zones. Sheep Mtn. (9), 1770–1830 m, 72-07-10; MP 82 (132 km), 73-06-16; MP 96 (154 km), 72-06-15.

Hierochloë odorata (L.) Wahlenb.
Hemicryptophyte. Circumpolar; widespread in North America. Occasional; mesic mesotrophic soils along forest edges and gravel bars in BWBS and SBW zones. Blackstone Pingo (11), 990 m, 72-08-20.

Hordeum jubatum L.
Therophyte. Circumpolar; widespread. Rare. Mesic subeutrophic soil of road edges and disturbed habitats in BWBS zone. Benson Creek (1) MP 18 (29 km), 72-07-17. Ricker (1968) reported this species from along the roadside near MP 56 (90 km). These records help bridge a gap in the distribution of this species outlined in Hultén (1968) for the central Yukon.

*[*Phippsia algida* (Soland.) R. Br.]
Reported by Porsild (1974) from river flats and a cold spring overflow near MP 57–58 (92–93 km) Dempster Highway.

Phleum commutatum Gandoger
Hemicryptophyte. Circumpolar; widely scattered distribution in North America. Occasional. Hygric subeutrophic soils of alpine meadows and riverbanks in SBW and AT zones. Tombstone Range (3), 1500 m, 71-08-29; North Fork Pass (7), 71-09-02.

Poa alpigena (E. Fries) Lindm.
Geophyte. Circumpolar; Arctic, Subarctic. Mesic mesotrophic soil in alpine meadows of SBW and AT zones. Occasional. North Fork Pass (7), 71-09-02.

Poa alpina L.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional. Mesic mesotrophic soil of meadows, scree slopes and gravel bars in the SBW and AT zones. Blackstone Pingo (11), 990 m, 72-08-20; MP 87 (140 km), 71-09-02; MP 93 (150 km), 915 m, 73-06-22, MP 100 (161 km), 900 m, 72-07-07.

Poa ampla Merrill
Hemicryptophyte. North American; Cordilleran. Rare. Well-drained mesic-xeric subeutrophic soil of grassy meadows in SBW zone. MP 103 (166 km), 71-09-02. Not previously reported from the central Yukon.

Poa arctica R. Br.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Common. Mesic mesotrophic soil of alpine meadows, birch thickets and river bank habitats in SBW and AT zones. MP 103 (166 km) 71-09-02; MP 166 (267 km), 71-09-02; MP 145 (233 km), 540 m, 73-06-22.

Poa glauca M. Vahl
Calcicolous (?) hemicryptophyte. Circumpolar; widespread in North America. Occasional; mesic subeutrophic soil of open slopes and disturbed sites in BWBS and SBW zones. North Fork Pass (7), 1070 m, 71-09-02; Foxy Creek (10), 1200 m, 72-07-18; Blackstone Pingo (11), 72-08-20; MP 103 (166 km), 71-09-02.

Poa lanata Scribn. & Merr.
Hemicryptophyte. Amphi-Beringian; Cordilleran. Rare. Mesic mesotrophic soil in meadows of SBW and AT zones. MP 53 (85 km), 72-07-07; Sheep Mtn. (9), 1370 m, 72-07-10; Foxy Creek (10), 72-07-18; MP 105 (169 km), 805 m, 73-06-22.

Poa palustris L.
Hemicryptophyte. Circumpolar; widespread in North America. Occasional; hygric subeutrophic soil along stream edges in BWBS and SBW zones. MP 41 (66 km), 1250 m, 72-07-07; North Fork Pass (7), 71-09-02.

Poa paucispicula Scribn. & Merr.
Hemicryptophyte. Amphi-Beringian. Rare. Mesic subeutrophic soil in meadows and snow beds of AT zone. Sheep Mtn. (9), 1370 m, 72-07-10.

**Poa vaseyochloa* Scribn.
Hemicryptophyte. North American; Cordilleran. Common. Mesic mesotrophic soil of meadows in SBW and AT zones. Sheep Mtn. (9), 1370 m, 72-07-10; Foxy Creek (10), 1370 m, 72-07-18; Blackstone River valley near MP 72 (116 km), 72-07-18.

Puccinellia Nuttalliana (Schult.) Hitchc.
Hemicryptophyte. North American; Cordilleran, Prairie. Rare. Mesic subeutrophic soil along roadsides and disturbed sites of BWBS zone. MP 39 (63 km), 915 m, 72-07-14; MP 41 (66 km), 960 m, 73-08-22.

Trisetum spicatum (L.) Richter
Hemicryptophyte. Circumpolar; Arctic, Subarctic. Common. Meadows, grasslands and river banks with mesic mesotrophic soil in SBW and AT zones. MP 49 (79 km), 1250 m, 72-07-07; Tombstone Range (3), 1505 m, 71-08-29.

Cyperaceae

Carex aquatilis Wahlenb.
Geophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Common. Hygric subeutrophic soil of fens and lake shores in BWBS and SBW zones. Foxy Creek (10), 72-07-18; Blackstone Pingo (11), 72-08-20; MP 111 (179 km), 71-09-02.

Carex atrata L. ssp. *atrosquamea* (Mack.) Hult.
Hemicryptophyte. North American; Cordilleran. Rare. Meadows and birch thickets with hygric subeutrophic soil in the SBW zone. MP 21 (34 km), 780 m, 72-06-19. Not previously reported from the central Yukon near latitude 64°N.

[*Carex atrofusca* Schkuhr]
Reported by Porsild (1974) from the shore of Chapman Lake MP 72 (116 km) and moist calcareous tundra MP 110 (177 km) Dempster Highway.

[*Carex bicolor* All.]
Collected from the edge of a dry bog near MP 57 (92 km) Dempster Highway and noted by Porsild (1974).

Carex Bigelowii Torr.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional. Meadows with hygric mesotrophic soil in BWBS, SBW and AT zones. North Fork Pass (7), 1100 m, 71-09-02; MP 65 (105 km), 71-09-02; MP 82 (132 km), 915 m, 73-06-16; MP 90 (145 km), 820 m, 73-06-13; Tombstone Range (3), 71-08-29.

*[*Carex bonanzensis* Britt.]
Wet meadows near MP 95 (153 km) Dempster Highway in Porsild (1974).

[*Carex brunnescens* (Pers.) Poir. ssp. *alaskana* Kalela]
From gravel river terraces near MP 68–69 (109–111 km) and 81 (130 km) Dempster Highway (Porsild 1974).

Carex canescens L.
Hemicryptophyte. Circumpolar; widespread in North America. Rare. In seepage sites and fens with hygric subeutrophic soil in the SBW and BWBS zones. Chapman Lake (12), 975 m, 73-06-26.

Carex capillaris L.

Hemicryptophyte. Circumpolar; widespread. Common; seepage sites with subeutrophic soil in the BWBS and SBW zones. Foxy Creek (10), 915 m, 72-07-18; MP 116 (187 km), 630 m, 71-09-02.

Carex capitata Soland. in L.

Hemicryptophyte. Circumpolar; Subarctic, Boreal. Rare. Fens and lake edges with hygric subeutrophic soil in the BWBS and SBW zones. Blackstone Pingo (11), 990 m, 72-07-16.

**Carex chordorrhiza* Ehrh.

Hemicryptophyte. Circumpolar; Subarctic, Boreal. Rare. Hygric subeutrophic soil along stream edges in SBW zone. North Fork Pass (7), 1070 m, 71-09-02. This collection is the second report from the central Yukon. Porsild (1974) noted that material collected from near MP 75 (121 km) and 82 (132 km) Dempster Highway bridged a major gap in the distribution of this species.

Carex concinna R. Br.

Calcicolous hemicryptophyte. North American; Subarctic, Boreal, Cordilleran. Occasional. Mesic subeutrophic soil that is well-drained in the BWBS and SBW zones. Cache Creek MP 82 (132 km), 915–1220 m, 73-06-14; MP 99 (159 km), 930 m, 73-06-13; MP 100 (161 km), 900 m, 73-06-19. Along with the collection noted by Porsild (1974), the above helps fill a gap in the distribution of this species for the central Yukon.

[*Carex consimilis* Holm]

Reported by Porsild (1974) from peat hummocks and alpine tundra at several locations between MP 51 (82 km) and MP 110 (177 km) Dempster Highway.

Carex dioica L.

Geophyte. Circumpolar; Subarctic, Boreal, Cordilleran. Rare. Collected from a larch fen with subeutrophic soil near MP 138.5 (223 km), 560 m, 73-06-22, in the BWBS zone. This collection represents a slight range extension to approximately 65°30′N latitude for the Yukon.

**Carex eburnea* Boott

Calcicolous hemicryptophyte. North American; widely scattered. Rare. Mesic subeutrophic sandy soil in BWBS and SBW zones. MP 100 (161 km), 900 m, 72-07-07. This is only the second collection of this species from the Yukon. It fills a large gap in the distribution between central Alaska and the Northwest Territories as given by Hultén (1968).

**Carex eleusinoides* Turcz.

Hemicryptophyte. Ameroasian. Occasional; hygric subeutrophic soil along stream edges and gravel bars in the SBW zone. MP 31 (50 km), 73-06-21.

Carex Franklinii Boott

Calcicolous (?) hemicryptophyte. Asioamerican (?); scattered distribution in North America. Meadows with mesic subeutrophic soil in the SBW and AT zones. Rare. Collected from a white spruce forest edge near MP 99 (159 km), 1005 m, 73-06-26. The Cwynar (1983) collection from the southern Richardson Mountains (66°N latitude) represents the most northern limit so far reported for the Yukon.

Carex glacialis Mack.

Calcicolous hemicryptophyte. Circumpolar; Arctic, Subarctic, Boreal. Rare. Mesic subeutrophic gravelly soils in the SBW zone. MP 82 (132 km), 975 m, 73-06-16.

**Carex heleonastes* Ehrh.

Hemicryptophyte. Circumpolar; scattered distribution in North America. Rare. Hygric mesotrophic soil along streams and swampy habitats in BWBS and SBW zones. Wolf Creek (2) MP 32 (51 km), 73-07-02; North Fork Pass (7), 1070 m, 71-09-02. There are very few records of this species from the Yukon (see map in Hultén 1968). Porsild (1974) commented on its 'spotty' distribution and reported it from the Stewart Plateau.

**[Carex holostoma* Drej.]

Porsild (1974) reported this species from near MP 82 (132 km) Dempster Highway occurring in wet tundra as new to the flora of the Yukon.

Carex Krausei Boeck.

Hemicryptophyte. Circumpolar (?); scattered distribution in North America. Occasional. Hygric subeutrophic soil in seepage sites and along forest edges in the BWBS and SBW zones. Foxy Creek (10), 72-07-18. This is the first collection of this species from the central Yukon. According to the distribution given in Hultén (1968), it was known previously from the southwestern corner of the Yukon and the northern slopes of the Brooks Range in Alaska.

Carex Lachenalii Schkuhr

Hemicryptophyte. Circumpolar; Arctic, Cordilleran. Occasional. Hygric mesotrophic soil of bogs in the SBW and AT zones. Tombstone Range (3), 71-08-28; North Fork Pass (7), 1070 m, 71-09-02; Foxy Creek (10), 72-07-18.

**Carex lapponica* Lang

Hemicryptophyte. Circumpolar with gaps in Siberia and North America. Rare. Hygric subeutrophic soil of river banks and gravel outwash in the SBW zone. MP 21 (34 km), 780 m, 72-06-19. This is the third record of this species from the Yukon. It was previously reported from the Dawson area (Hultén 1968) and Mount Sheldon in the Selwyn Range (Porsild 1951).

**Carex laxa* Wahlenb.

Geophyte. Ameroasian with large gaps. Rare. Hygric subeutrophic soil along forest edges in the SBW zone. MP 138.5 (223 km), 560 m, 73-06-22. A northern range extension to approximately 65°30′N latitude. Porsild (1974) reported collections from the vicinity of Mayo and the McQuesten River as new to the flora of the Yukon.

Carex limosa L.

Geophyte. Circumpolar; widespread in North America. Occasional; fens with hygric subeutrophic soil in the BWBS and SBW zones. Blackstone Pingo (11), 990 m, 72-08-20.

**[Carex livida* (Wahlenb.) Willd.]

Found by Porsild (1974) along calcareous river flats MP 53–55 (85–88 km) and MP 75 (121 km) Dempster Highway.

Carex loliacea L.

Hemicryptophyte. Circumpolar; Subarctic, Boreal. Rare. Fens and seepage sites with subeutrophic soil in SBW zone. MP 18 (29 km), 72-07-17.

Carex lugens Holm

Hemicryptophyte. Amphi-Beringian. Occasional. Bogs and swampy habitats with mesotrophic soil in SBW and AT zones. MP 20 (32 km), 72-06-26; MP 46 (74 km), 72-07-07; Tombstone Range (3), 71-08-27; MP 63 (101 km), 1120 m, 73-08-06; MP 111 (179 km), 71-09-02.

Carex media R. Br.

Hemicryptophyte. Circumpolar; widespread in North America. Occasional. Meadows and seepage sites with hygric subeutrophic soil in BWBS and SBW zones. Wolf Creek MP 32 (51 km), 72-07-25.

Carex membranacea Hook.

Hemicryptophyte. Asioamerican; Arctic, Subarctic. Occasional; fens and stream edges with subeutrophic soil in SBW and AT zones. Tombstone Range (3), 1450 m, 71-08-29; Foxy Creek MP 59 (90 km), 1310 m, 72-07-18; MP 100 (161 km), 72-07-07; MP 103 (166 km), 71-09-02.

Carex microchaeta Holm

Hemicryptophyte. North American; Alaska-Yukon. Common. Meadows and well-drained slopes with mesic mesotrophic soil in SBW and AT zones. Tombstone Range (3), 71-08-30; Fold Mtn. (5), 1250 m, 73-06-20; Sheep Mtn. (9), 1920 m, 72-07-10; North Fork Pass (7), 72-07-09.

[*Carex microglochin* Wahlenb.]
From wet places along MP 53–54 (85–87 km) Dempster Highway (Porsild 1974).

[*Carex microptera* Mack.]
From a river flat near MP 67 (108 km) Dempster Highway (Porsild 1974).

Carex misandra R. Br.
Calcicolous hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional. Meadows in the SBW and AT zones with mesic subeutrophic soil. Sheep Mtn. (9), 1555 m, 73-07-17; Foxy Creek MP 56 (90 km), 1370 m, 72-07-18; MP 116 (187 km), 71-09-02.

Carex nardina E. Fries
Calcicolous hemicryptophyte. North American with a few localities known in Scandinavia and the Chukotka Peninsula; Arctic, Subarctic, Cordilleran. Occasional. Xeric to mesic subeutrophic soil in meadows of the AT zone. Sheep Mtn. (9), 1430 m, 73-06-24.

[*Carex norvegica* Retz.]
Collected from river flats near MP 58 (93 km) Dempster Highway (Porsild 1974).

Carex obtusata Lilj.
Calcicolous geophyte. Circumpolar (?) with large gaps; scattered. Rare. South-facing grasslands with mesic subeutrophic soil in SBW and AT zones. Sheep Mtn. (9), 72-07-10.

Carex petricosa Dew.
Calcicolous hemicryptophyte. North American; Alaska-Yukon, Cordilleran. Rare. Meadows with dry mesotrophic to subeutrophic soil in the SBW and AT zones. MP 53 (85 km), 72-07-07; MP 100 (161 km), 895 m, 73-06-22.

Carex podocarpa C. B. Clarke
Hemicryptophyte. Amphi-Beringian; Cordilleran. Common. Meadows, seepage sites and willow thickets with hygric subeutrophic soil in the SBW and AT zones. Tombstone Range (3), 71-08-30; Wolf Creek (2), 825 m, 72-06-22; Fold Mtn. (5), 1065 m, 73-06-20; Foxy Creek MP 56 (90 km), 1340 m, 72-07-18.

Carex praticola Rydb.
Hemicryptophyte. North American; Boreal, Cordilleran, Pacific. Rare. Grassland with mesic mesotrophic soil in the BWBS and SBW zones. Wolf Creek (2), 825 m, 72-06-22.

Carex pyrenaica Wahlenb. ssp. *micropoda* (C. A. Mey.) Hult.
Hemicryptophyte. Ameroasian and Europe; Cordilleran and Pacific. Rare. Tundra hummocky meadows and rocky slopes with mesic mesotrophic soil in the AT zone. Tombstone Range (3), 1500–1575 m, 71-08-29. Previously unreported from the central Yukon, latitude 64°22'N.

* *Carex rariflora* (Wahlenb.) J. E. Sm.
Hemicryptophyte. Circumpolar; Arctic, Subarctic. Occasional; stream edge and lake margins with shallow water in SBW zone. Foxy Creek (10), 72-07-18; MP 75.5 (122 km), 975 m, 73-06-26.

Carex rostrata Stokes
Geophyte. Circumpolar; widespread in North America. Lake shores and marshes with subeutrophic soil in BWBS and SBW zones. Occasional. MP 81 (130 km), 915 m, 73-08-25.

Carex rupestris All.
Geophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Rare. Meadows with mesic subeutrophic soil in SBW and AT zones. Fold Mtn. (5), 1250 m, 73-06-20.

Carex saxatilis L. ssp. *laxa* (Trautv.) Kalela
Geophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional. Lake margins with hygric subeutrophic soil in BWBS and SBW zones. Tombstone Range (3), 71-08-29; Foxy Creek (10), 1190 m, 72-07-18.

Carex scirpoidea Michx.
Calcicolous hemicryptophyte. North America (including Scandinavia and Chukotka); Arctic, Subarctic, Boreal, Cordilleran. Common. Meadows and open spruce forests with mesic subeutrophic soil in the BWBS, SBW and AT zones. Tombstone Range (3), 1450–1460 m, 71-08-29; Sheep Mtn. (9), 1525 m, 72-07-10; Foxy Creek (10), 72-07-18; MP 100 (161 km), 72-07-07; MP 103 (166 km), 71-09-02.

Carex scopulorum Holm
Hemicryptophyte. North American; Cordilleran. Rare. Stream edge with hygric mesotrophic soil in SBW zone. Tombstone Range (3), 1450–1460 m, 71-08-29. There are very few records of this species from the Yukon (see distribution in Hultén 1968).

Carex supina Willd. ssp. *spaniocarpa* (Steud.) Hult.
Calcicolous hemicryptophyte. Circumpolar; Arctic, Cordilleran. Occasional. South slopes and gravelly xeric subeutrophic soils in SBW and AT zones. MP 82 (132 km) (12), 915–1220 m, 73-06-14; MP 99 (159 km), 930 m, 73-06-26; North Fork Pass (7), 1310 m, 72-06-15.

[*Carex tenuiflora* Wahlenb.]
From meadows and bogs near MP 56 (90 km) and 84 (135 km) Dempster Highway (Porsild 1974).

Carex vaginata Tausch
Hemicryptophyte. Circumpolar; widespread in North America. Common. Forest edges and seepage habitats with hygric subeutrophic soil in the BWBS and SBW zones. Tombstone Range (3), 1450–1460 m, 71-08-29; MP 53 (85 km), 72-07-07; Foxy Creek (10), 72-07-18; MP 88 (142 km), 855 m, 73-06-16; MP 103 (166 km), 71-09-02. Together with the records of this species by Porsild (1974), the above collections close a gap in distribution given by Hultén (1968) for the central Yukon.

**Carex Williamsii* Britt.
Hemicryptophyte. Irregular; Subarctic. Rare. Forest edges and seepage sites with subeutrophic soil in the SBW zone. MP 53 (85 km), 1160 m, 72-07-31; MP 111 (179 km), 71-09-02. Apparently rare in the Yukon with few records; also reported from Old Crow flats by Nagy *et al.* (1979).

Eleocharis acicularis (L.) Roem. & Schult.
Geophyte. Circumpolar; widespread in North America. Rare. Wet mud and lake shores with subeutrophic soil in the BWBS and SBW zones. Blackstone Pingo (11), 990 m, 72-08-20.

*[*Eleocharis palustris* (L.) Roem. & Schult.]
Noted as a range extension by Porsild (1974) from boggy places at MP 55–56 (88–90 km) and MP 96–98 (154–158 km) Dempster Highway.

Eriophorum angustifolium Honck. ssp. *subarcticum* (Vasiljev) Hult.
Geophyte. Circumpolar; Arctic, Subarctic, Boreal, Cordilleran. Occasional. Polygon depressions and shallow water with subeutrophic soil in BWBS and SBW zones. Tombstone Range (3), 1450–1460 m, 71-08-29; MP 53 (85 km), 72-07-07.

Eriophorum angustifolium Honck. ssp. *triste* (T. Fries) Hult.
Geophyte. Circumpolar; Arctic, Subarctic. Occasional. Shallow water and polygon depressions with subeutrophic soil in SBW zone. North Fork Pass (7), 72-07-09.

Eriophorum callitrix Cham.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional. Minerotrophic bogs with hygric soil in SBW zone. Cache Creek Mtn. (13), 945–1065 m, 73-06-14. There are few collections of this species from the Yukon (Porsild 1974). The above collection is only the second report from the central Yukon.

[*Eriophorum russeolum* E. Fries var. *albidum* Nyl.]
From river flats and lakeshores between MP 51 (82 km) and MP 82 (132 km) Dempster Highway (Porsild 1974).

Eriophorum Scheuchzeri Hoppe

Geophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Polygon depressions, stream edges and lake shores with hygric mesotrophic soil in the BWBS, SBW and AT zones. Common. Tombstone Range (3), 71-08-28; MP 43 (69 km), 72-07-03; MP 53 (85 km), 1220 m, 72-06-15.

Eriophorum vaginatum L.

Hemicryptophyte. Circumpolar; Arctic, Subarctic, Boreal, Cordilleran. Abundant. Bogs with permafrost and oligotrophic soil in the SBW and BWBS zones. MP 58 (93 km), 1130 m, 73-06-10; MP 65 (105 km), 1100 m, 71-09-02; MP 86 (138 km), 940 m, 72-07-07.

Kobresia myosuroides (Vill.) Fiori & Paol.

Calcicolous hemicryptophyte. Circumpolar; widespread in North America. Occasional. Meadows with mesic subeutrophic soil in the SBW and AT zones. Sheep Mtn. (9), 1525 m, 72-07-10; Foxy Creek (10), 72-07-18.

Kobresia sibirica Turcz.

Hemicryptophyte. Irregular; scattered. Rare. Meadows with mesic mesotrophic soil in the SBW and AT zones. Foxy Creek (10), 72-07-18; MP 100, 895 m, 73-06-22. This is only the second report of this species from the central Yukon.

Kobresia simpliciuscula (Wahlenb.) Mack.

Hemicryptophyte. Circumpolar; scattered distribution in North America. Occasional; meadows with mesic subeutrophic soil in the AT zone. Foxy Creek (10), 72-07-18; MP 100 (161 km), 72-07-07. Previously reported by Porsild (1974) for the first time from the central Yukon.

*[*Scirpus validus* M. Vahl]

Pond margins near MP 91–93 (146–150 km) Dempster Highway (Porsild 1974).

Trichophorum caespitosum (L.) Hartm.

Hemicryptophyte. Circumpolar; widespread in North America. Occasional. Calcareous fens and marshes with hygric subeutrophic soil in SBW zone. Foxy Creek (10), 72-07-18; MP 82 (132 km), 915–1005 m, 73-06-19. The second report of this species from the Ogilvie Mountain area of the central Yukon.

Lemnaceae

[*Lemna trisulca* L.]

From Chapman Lake, MP 82 (132 km) Dempster Highway (Porsild 1974).

Juncaceae

Juncus arcticus Willd. ssp. *alaskanus* Hult.

Geophyte. Asioamerican. Occasional. Meadows, seepage habitats and river flats with hygric subeutrophic soil in the SBW and BWBS zones. MP 61 (98 km), 1245 m, 72-07-07; MP 65 (105 km), 71-09-02.

Juncus biglumis L.

Geophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Rare. Seepage habitats and open wet mud with subeutrophic soil in the SBW and AT zones. Tombstone Range (3), 71-08-28; MP 50 (80 km), 1325 m, 73-07-26. The second record of this species from the Ogilvie Mountain area.

[*Juncus bufonius* L.]

Porsild (1974) reported this species from a summer-dry pond near MP 96–98 (154–158 km) Dempster Highway as a new northern limit for the Yukon

Juncus castaneus Sm. ssp. *castaneus*

Geophyte. Circumpolar; widespread. Meadows and river flats with hygric subeutrophic soil in the SBW and BWBS zones. Occasional. MP 41 (66 km) (4), 960 m, 72-07-02; MP 61 (98 km), 1275 m, 72-07-07; MP 86 (138 km), 940 m, 72-07-07; MP 116 (187 km), 71-09-02; Tombstone Range (3), 71-08-29.

[*Juncus filiformis* L.]

Floodplain meadows in the Blackstone River valley near MP 96 (154 km) Dempster Highway (Porsild 1974).

**Juncus triglumis* L. ssp. *triglumis*

Hemicryptophyte. Circumpolar; Arctic, Subarctic. Rare. Talus slope bases and seepage sites with subeutrophic soil in the SBW and AT zones. Blackstone Pingo (11), 72-08-20; MP 138.5 (223 km), 560 m, 73-06-22. There are few records of this taxon for the central Yukon.

Luzula arctica Blytt

Hemicryptophyte. Circumpolar; Arctic, Subarctic. Rare. Meadows with hygric mesotrophic soil in the AT zone. Sheep Mtn. (9), 1675 m, 72-07-10; MP 65 (105 km), 71-09-02. This is the second record of this species from the Ogilvie Mountains in the Yukon which fills a large gap in the distribution as given by Hultén (1968).

Luzula arcuata (Wahlenb.) Sw. ssp. *unalaschcensis* (Buchenau) Hult.

Hemicryptophyte. Amphi-Beringian; Cordilleran. Occasional. Willow thickets, meadows and seepage sites with hygric subeutrophic soil in the SBW and AT zones. Tombstone Range (3), 1675 m, 71-08-28; North Fork Pass (7), 1070 m, 71-09-02. Previously reported by Porsild (1974) from the central Yukon for the first time.

Luzula confusa Lindeb.

Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Rare. Meadows and snow beds with mesic mesotrophic soil in the AT zone. Tombstone Range (3), 1830 m, 71-08-28; North Fork Pass (7), 72-07-09.

*[*Luzula groenlandica* Böcher]

From river terraces, floodplains and lakeshores between MP 50 (80 km) and 110 (177 km) (Porsild 1972 and 1974).

Luzula multiflora (Retz.) Lej. ssp. *multiflora*

Hemicryptophyte. Circumpolar; widespread in North America. Meadows, seepage sites and willow thickets with hygric subeutrophic soil in the SBW and AT zones. Common. Mtn. west of MP 41 (66 km) (5), 1645 m, 73-06-20; North Fork Pass (7), 72-07-09; Sheep Mtn. (9), 1415 m, 72-07-10; Foxy Creek (10), 72-07-18.

Luzula parviflora (Ehrh.) Desv. ssp. *parviflora*

Hemicryptophyte. Circumpolar; widespread. Occasional; meadows, river banks and forest edges with hygric mesotrophic soil in the BWBS and SBW zones. Tombstone Range (3), 71-08-29; MP 49 (79 km), 1250 m, 72-07-07; MP 23 (37 km), 72-07-01; Foxy Creek (10), 72-07-18.

Luzula rufescens Fisch.

Hemicryptophyte. Ameroasian; Arctic, Subarctic. Rare. Meadows and willow thickets with hygric subeutrophic soil in the SBW and AT zones. Tombstone Range (3), 1545 m, 71-08-28; MP 90 (145 km), 820 m, 73-07-16.

Luzula spicata (L.) DC.

Hemicryptophyte. Circumpolar; scattered distribution in North America. Scree slopes and stony habitats with mesic mesotrophic soil in the SBW and AT zones. Tombstone Range (3), 1830 m, 71-08-28. Occasional.

Luzula tundricola Gorodk.

Hemicryptophyte. Amphi-Beringian; Arctic, Subarctic. Rare. Stony slopes and meadows with mesic mesotrophic soil in the SBW and AT zones. North Fork Pass (7), 1675 m, 72-07-09; Foxy Creek (10), 72-07-18.

Liliaceae

Lloydia serotina (L.) Rchb.

Geophyte. Ameroasian; Cordilleran. Occasional. Meadows, scree slopes and willow thickets with mesic mesotrophic soil in

the SBW and AT zones. MP 41 (66 km) (5), 1610 m, 73-06-20; MP 46 (74 km), 72-07-07; North Fork Pass (7), 1675 m, 72-07-09; MP 53 (85 km), 1220 m, 72-06-15.

Tofieldia coccinea Richards.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional; mesic subeutrophic (often calcareous) soils in the AT and SBW zones. MP 82 (132 km), 73-06-19.

Tofieldia pusilla (Michx.) Pers.
Hemicryptophyte. Circumpolar; Arctic, Subarctic, Cordilleran. Occasional. Meadows, stream edges and willow thickets with hygric subeutrophic soil in the SBW and AT zones. MP 53 (85 km), 71-07-07; Foxy Creek MP 56 (90 km), 72-07-18.

Zygadenus elegans Pursh
Geophyte. North American; Cordilleran, Prairie. Occasional. Grasslands and open south-facing slopes with mesic subeutrophic soil in the SBW zone. Sheep Mtn. (9), 72-07-10; MP 100 (161 km), 900 m, 72-07-07.

ORCHIDACEAE

Amerorchis rotundifolia (Banks) Hult.
Geophyte. North American; Subarctic, Boreal, Cordilleran. Rare. Seepage sites and floodplains with hygric subeutrophic (often calcareous) soils in the BWBS and SBW zones. MP 19 (30 km), 700 m, 72-07-03.

Corallorhiza trifida Chatelain
Geophyte. Circumpolar; widespread in North America. Occasional. Spruce forests and floodplains with hygric subeutrophic soil in the BWBS and SBW zones. Saprophytic. MP 99 (159 km), 930 m, 73-06-16.

Cypripedium passerinum Richards.
Calcicolous geophyte. North American; Subarctic, Boreal, Cordilleran. Rare. Grassy openings in spruce forests with mesic subeutrophic soil in the SBW zone. MP 100 (161 km), 72-07-07.

Platanthera hyperborea (L.) Lindl.
Calcicolous (?) geophyte. North American; widespread. Meadows and wet forest edges with subeutrophic soil in the SBW and BWBS zones. Rare. MP 138.5 (223 km), 580 m, 73-07-25. A northern range extension to 65°30′ latitude for the Yukon.

Platanthera obtusata (Pursh) Lindl.
Geophyte. Circumpolar (?); Subarctic, Boreal, Cordilleran. Common. Wet spruce forests and floodplains with subeutrophic soil in the BWBS and SBW zones. MP 41 (66 km), 960 m, 72-07-02.

Spiranthes romanzoffiana Cham.
Geophyte. North American; widespread. Rare. Marshes and open spruce forests with seepage and subeutrophic soil in the BWBS zone. MP 19 (30 km), 73-08-14.

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